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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/872,404	06/01/2001	Michael H. Myers	2807.2.22.28	3801

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EXAMINER

SEDIGHIAN, REZA

ART UNIT PAPER NUMBER

2633

DATE MAILED: 07/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/872,404	Applicant(s) MYERS ET AL.	
	Examiner M. R. Sedighian	Art Unit 2633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claim 1-18 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of copending Application No. 09/872,405. Although the conflicting claims are not identical, they are not patentably distinct from each other because both application claim receiving a photonic signal having a received wavelength, a spectrum replicator that is configured to receive and spectrally replicate the received photonic signal to provide a replicated photonic signal, a narrowband filter that is configured to receive the replicated photonic signal to provide a transmitted photonic signal.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 15, it is not clear what is meant by “... combining a photonic feedback signal with the received photonic signal and the photonic mixing signal to provide a combined photonic signal;” Which signal is the feedback signal??

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-2, 10, 12, and 14, are rejected under 35 U.S.C. 102(b) as being anticipated by Ma et al. (US Patent No: 6,147,796).

Regarding claim 1, Ma teaches a method for photonic transceiving (col. 2, lines 66-67, col. 3, lines 1-4 and fig. 1), comprising: providing a received (105, fig. 1) photonic signal having a received wavelength (λ_1 , λ_2 , fig. 1); spectrally replicating (repeater 106, fig. 1) the received photonic signal to provide a replicated photonic signal (note that optical signals that are received by an optical amplifier 106, repeated or replicated by amplifier 106, and continued transmission over path 105); and narrowband filtering (109₁, fig. 1) the replicated photonic signal to provide a transmitted photonic signal (col. 3, lines 19-22).

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Regarding claim 2, Ma teaches filtering and tuning to an arbitrary wavelength range (note that filter 109₁ is tuned to wavelength λ_1 and filter 109₂ is tuned to wavelength λ_2).

Regarding claim 10, Ma teaches spectral comb replication (note that optical signal are repeated or replicated by optical amplifiers 106).

Regarding claim 12 and 14, Ma teaches spectrally replicating comprises a four-wave-mixer (optical signal are mixed or combined in a combiner 103, and thereafter replicated).

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ma et al. (US Patent No: 6,147,796) in view of Taga (US Patent No: 5,822,095).

Regarding claim 3, Ma differs from the claimed invention in that Ma does not disclose narrowband filtering comprises circulating the replicated photonic signal, and selectively reflecting the photonic signal, and circulating the reflected signal. Taga teaches an optical add-drop multiplexer (fig. 1) that is comprised of a circulator (3, fig. 1) that is connected to a reflecting filter (4, fig. 1) and an output port (2, fig. 1) that gets the reflected signal (col. 3, lines 1-16). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate an optical circulator and a filter such as the one Taga for the filter in the transmission system of Ma in order to filter or transmit specific optical channels.

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9. Claims 1-2, 4-7, 10, 12, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (US Patent No: 4,817,207).

Regarding claim 1, Smith (US Patent No: 4,817,207) teaches a method for photonic transceiving (fig. 1), comprising: providing a received photonic signal having a received wavelength (the output signal of laser 1); spectrally replicating (3, fig. 1) the received photonic signal to provide a replicated photonic signal (col. 2, lines 42-61, note that the signal is repeated or replicated by transmission assembly 3). Smith differs from the claimed invention in that Smith does not specifically disclose narrowband filtering the replicated photonic signal to provide a transmitted photonic signal. Smith in a different embodiment (fig. 2) teaches a bandpass filter (10, fig. 2) along the transmission path to pass a specific wavelength (col. 3, lines 11-14). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate a bandpass filter such as bandpass filter 10, along the transmission path and optical amplifier 6 of fig. 1, in order to pass a specific optical signal that can be used for further transmission or signal processing.

Regarding claim 2, Smith teaches narrowband filtering comprises tuning to an arbitrary wavelength range (col. 3, lines 11-14).

Regarding claims 4 and 10, Smith teaches the spectrally replicating (3, fig. 1) comprises wavelength shifting (col. 2, lines 42-60).

Regarding claims 5-7, Smith teaches the wavelength shifting comprises a modulation device (2, fig. 1) characterized by a modulation waveform and configured to modulate the received signal in accordance with a modulation waveform to provide a shifted signal (col. 2, lines 42-52) and the modulation waveform encoded to shift the received wavelength to the

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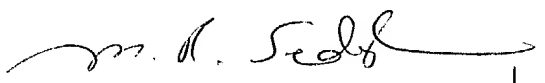
shifted wavelength (note that modulator 2 receives an input modulation signal) to provide the modulation waveform to the modulation device (2, fig. 1).

Regarding claims 12 and 14, Smith teaches spectrally replicating comprises four-wave-mixing (col. 2, lines 49-55).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. R. Sedighian whose telephone number is (703) 308-9063. The examiner can normally be reached on M-F (from 9 AM to 5 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (703) 305-4729. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


M.R. SEDIGHIAN
Primary Examiner
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